HONORARY SYMPOSIUM

60 Years of Taking Aluminum Smelting Research and Development from New Zealand to the World: An LMD Symposium in Honor of Barry J. Welch

ABOUT THE SYMPOSIUM
Barry Welch will be honored in special sessions of the Aluminum Reduction Technology symposium held at the TMS 2023 Annual Meeting & Exhibition (TMS2023). One session will be held jointly with Alumina & Bauxite and one with Electrode Technology. In addition to a talk by the honoree, these sessions will include additional presentations by invited speakers outlining Welch’s achievements related to alumina and electrodes, as well as other presentations by invited or selected speakers. Presentations by invited speakers with a regional focus—talks from each of the regions/companies where the honoree has had a deep involvement and impact—will also be featured.

Authors seeking an oral presentation opportunity must submit a manuscript for the Light Metals 2023 proceedings volume or be accepted for publication in a TMS journal.

ABOUT THE HONOREE
Barry J. Welch has been involved in molten salt electrochemistry and electrowinning for more than 65 years. His aluminum smelting contributions started at the 1962 TMS-AIME symposia, the catalyst for establishing TMS’s annual Light Metals proceedings series. After a brief period in industry, he accepted an academic appointment at the University of New South Wales, Australia, where he established the research group for molten salt metal extraction. In 1981, he returned to New Zealand, heading the Department of Chemical and Materials Engineering where he established a second collaborating research center focusing on the aluminum industry, which he led until his formal retirement in 1998. The move enabled him to contribute to the annual Light Metals Division program, co-authoring or presenting more than 40 papers during that period, of which ten received best paper awards. He simultaneously served on a range of TMS and Light Metals Division (LMD) committees.

His early “retirement” enabled him focus on the aluminum industries’ need to integrate the science and physics of the smelting process with the industrial cell design and work-practices for minimizing energy consumption and the industry’s carbon footprint. He continues contributing to the annual LMD program and serving as a course instructor at every installment of the TMS Industrial Aluminum Electrolysis course.

In 2014, Welch’s service to TMS was recognized by the Alexander R. Scott Distinguished Service Award, while his professional contributions were also recognized by the James Douglas Gold Medal, awarded by the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME). In 2015, he was elected a TMS Fellow.

Besides publishing more than 150 technical papers on molten salt electrochemistry and aluminum electrowinning, Welch has co-authored two texts on aluminum smelting and co-edited five international conference proceedings.

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